

Applicant: Dan Aharoni, *et al.*
U.S.S.N.: 10/786,965
Filing Date: 2/25/2004
EMC Docket No.: EMC-02-132CIP1

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the Application.

Listing of Claims:

1. (Currently amended) A method of enabling a user to construct a target data storage system to the method comprising the steps of:

displaying a user interface to the user, the user interface connected ~~over a network to~~ the target data storage system, the target data storage system comprising front end controllers coupled to a cache memory and a back end coupled to the cache, the back end comprising back end controllers coupled and a plurality of storage components, and one or more source data storage systems, each of the one or more source data storage systems comprising front end controllers coupled to a cache memory and a back end coupled to the cache, the back end comprising back end controllers coupled and a plurality of storage components;

the user interface including a selector to enable the user to select one or more data storage components from the one or more source data storage systems for inclusion in the target data storage system;

merging the one or more data storage components from the one or more source data storage systems into the target data storage system, including obtaining configuration characteristics and workload characteristics for the one or more data storage components from the one or more source data storage systems;

simulating performance of the target data storage system using one or more workloads to obtain utilization and performance information for each data storage system component

Applicant: Dan Aharoni, *et al.*
U.S.S.N.: 10/786,965
Filing Date: 2/25/2004
EMC Docket No.: EMC-02-132CIP1

~~including optimizing the backend end of the target storage system of the one or more data storage components of the one or more source data storage systems and for the target data storage system; and~~

graphically representing the utilization or performance of each of the one or more data storage components of the one or more source data storage systems merged into the target data storage system and the data storage components in the target data storage system on the user interface to enable the user to visually determine whether the target data storage system meets a desired performance.

2. (Previously presented) The method of claim 1, wherein the workload characteristics are obtained from a workload analyzer that analyzes the workload characteristics of the associated data storage component when executing in the source storage system in response to the one or more workloads.
3. (Previously presented) The method of claim 1, wherein the workload characteristics are input by the user.
4. (Previously presented) The method of 1 wherein the user consolidates the source data storage system by constructing the target data storage system to include fewer data storage components than the source data storage system.

Applicant: Dan Aharoni, *et al.*
U.S.S.N.: 10/786,965
Filing Date: 2/25/2004
EMC Docket No.: EMC-02-132CIP1

5. (Previously presented) The method of claim 1 wherein the target data storage system includes data storage components of higher capacity than the source data storage system.

6. (Previously presented) The method of claim 5, wherein the target data storage system is configured to be load balanced in accordance with information yielded from the step of simulating performance on the target data storage systems.

7. (Previously presented) The method of claim 1 wherein a graphical representation of the utilization or performance on the user interface visually indicates whether to consolidate a plurality of data storage components of the source data storage system to fewer or newer data storage system components.

8. (Currently amended) A system for simulating and displaying performance or utilization information of a target data storage the data storage system includes:

a computer having a memory and a display;
computer-executable program code, operable when executed upon by a processor of the system to:

display a user interface on the display, the user interface connected ~~over a network~~ to the target data storage system, to the target data storage system comprising front end controllers coupled to a cache memory and a back end coupled to the cache, the back end comprising back end controllers coupled and a plurality of storage components, and one or more source data storage systems,

Applicant: Dan Aharoni, *et al.*
U.S.S.N.: 10/786,965
Filing Date: 2/25/2004
EMC Docket No.: EMC-02-132CIP1

each of the one or more data storage systems comprising front end controllers coupled to a cache memory and a back end coupled to the cache, the back end comprising back end controllers coupled and one or more data storage components;

the user interface including a selector to enable a user to select a data storage component from the one or more source data storage systems for inclusion in the target data storage system;

merge the one or more data storage component from the one or more data storage systems into the target data storage system, including obtaining configuration characteristics and workload characteristics for the one or more data storage components from the one or more source data storage systems;

simulate performance of the target data storage system using one or more workloads to obtain utilization and performance information for each data storage components including optimizing the backend end of the target storage system of the one or more data storage components of the one or more source data storage systems and for the target data storage system; and

graphically represent the utilization or performance of each of the one or more data storage components of the one ore more source data storage systems merged into the target data storage system and the data storage components in the target data storage system on the user interface to enable the user to visually determine whether the target data storage system meets a desired performance.

Applicant: Dan Aharoni, *et al.*
U.S.S.N.: 10/786,965
Filing Date: 2/25/2004
EMC Docket No.: EMC-02-132CIP1

9. (Previously presented) The system of claim 8, wherein the workload characteristics are obtained from a workload analyzer that analyzes the workload characteristics of the associated data storage component when executing in a source storage system in response to the one or more workloads.

10. (Previously presented) The system of claim 8 workload characteristics are input by the user.

11. (Previously presented) The system of claim 8, wherein the user consolidates a source data storage system by constructing the target data storage system to include fewer data storage components than the source data storage system.

12. (Previously presented) The system of claim 8, wherein the target data storage system includes data storage components of higher capacity than the source data storage system.

13. (Previously presented) The system of claim 11, wherein the target data storage system is configured to be load balanced in accordance with information yielded from the step of simulating performance on target data storage systems.

14. (Previously presented) The system of claim 12, wherein the target data storage system is configured to be optimized for performance in accordance with information yielded from the step of simulating performance on the target data storage systems.

Applicant: Dan Aharoni, *et al.*
U.S.S.N.: 10/786,965
Filing Date: 2/25/2004
EMC Docket No.: EMC-02-132CIP1

Claims 15 - 21. (cancelled)